# Delaware 2012 IECC FAQ

These are answers to commonly asked questions concerning the 2012 International Energy Conservation Code, the 2012 IECC. Please consult the code for more complete answers.

**Who can I call if I have an energy code question?**
In Delaware, the IECC has been mandated by legislation as a statewide code. The DE Division of Energy & Climate is responsible for adopting the code. You should call their office at (302)735-3480 for energy code questions and interpretations. For specific enforcement issues, the local building department should be contacted.

**Where can I get a copy of the code?**
You can purchase the 2012 International Energy Conservation Code book online at: http://shop.iccsafe.org/2012-international-energy-conservation-code-soft-cover.html.
You can obtain a free pdf copy at: http://publicecodes.cyberregs.com/icod/iecc/2012/index.htm.

**How do I meet the code?**
You may choose one of the three paths in order to comply with the code.
1) Prescriptive Path: must install all items on prescriptive list.
2) UA Path: Path allowing tradeoffs. ResCheck, free software, can be used to easily make this calculation.
3) Simulated Performance Path: Energy Modeling path that uses a registered energy design professional, an energy Rater, to calculate compliance taking into account many additional features of the house besides insulation.

**Are there any Delaware Amendments to the code?**
Yes, Delaware has specific amendments to the IECC. They can be found in the Delaware Regulations for State Energy Conservation Code at:
http://regulations.delaware.gov/register/december2013/proposed/17%20DE%20Reg%20604%2012-01-13.pdf

Amendments include:
1) Duct tightness testing requirement is 6 CFM25/100 ft2.
2) Building tightness requirement has been amended to the following:
    3 ACH50 over 2,000 ft2 of conditioned space
    4 ACH50 between 1500 and 2000 ft2
    5 ACH50 below 1500 ft2
3) Hot water pipe insulation is not required on all hot water pipes, only from the water heater to the manifold.
4) Return ducts may be panned as long as the duct system is totally inside conditioned space and therefore does not need testing.

**Who is certified to use ResCheck?**
There is no certification required to use ResCheck. It is available at: http://www.energycodes.gov/rescheck

**Who is certified to complete Simulated Performance Path calculations?**
The most common software for this calculation is HERS

software. Acceptable contractors are energy Raters certified through RESNET and working under a RESNET Provider.

**What paperwork must I submit at plan review?**
One of the following items must be submitted. An approved 2012 REScheck including the checklist portion, a RemRate or equivalent type cost compliance report and inspection report, or all the minimum prescriptive requirements noted on the construction drawings.

**Is there an above code program that meets the energy code?**
Programs such as Energy Star or Building America may pass the code, but may not require all the mandatory features of the code. Check with your certified energy Rater, to see if you meet the code as you are now building.

**Am I required to test house leakage?**
Yes, the 2012 IECC requires a building leakage test. You must use a certified contractor for this testing.

**Am I required to test duct leakage?**
Yes, if any part of the duct system is outside of conditioned space. You must use a certified contractor for this testing.

**Who is certified to complete house and duct testing?**
Duct tightness testing can be performed by a RESNET Rater or Field Inspector working under a RESNET Provider, or by a certified BPI Heating Professional. House tightness testing can be performed by a RESNET Rater or Field Inspector working under a RESNET Provider, or by a certified BPI Building Analyst, Envelope Professional, or Heating Professional.

**Are ducts in garage ceilings considered inside conditioned space?**

Using the Prescriptive Path, if there is R-19 on the cold side of the duct they are considered inside conditioned space, and this would not trigger a duct test. If you are using the UA or Simulated Performance Path, then calculations must include **your installed** amount of insulation on the cold side of the duct with a minimum of the Mandatory R-8 for ducts. In all cases, insulation must wrap around the three sides away from the heated surface surface to avoid thermal bridging through nearby solid lumber, and the garage ceiling must be the air barrier.

**How about in an exterior wall?**

Using the Prescriptive Path, if there is R-20 on the cold side of the duct it is considered inside conditioned space, and this would not trigger a duct test. If you are using the UA or Simulated Performance Path, then calculations must include your installed amount of insulation on the cold side of the duct with a minimum of the Mandatory R-8 for ducts. In all cases, insulation must wrap around the three sides away from the heated surface to avoid thermal bridging through nearby solid lumber, and the sheathing must be the air barrier.

**Do I have to duct my return ducts, or can they be panned?**
Return ducts may be panned, but only if the entire duct system is inside conditioned space.

**Are my heater and air conditioner efficiency taken into account in code calculations?**
No. Just like the 2009 version of the code, specific equipment efficiencies are not required, and they are not used in calculations for the UA and Simulated Performance Paths.

**How can I meet the ventilation requirement?**
First calculate the volume of air that must be supplied in your house. (See Chart) Then the most common way to supply that air is to install a high efficiency fan in a bathroom with a controller to maintain your calculated rate. You can also install a duct with an electronic damper from an outside wall to your return duct in your HVAC system. Along with the system fan, the damper is set up to deliver the correct amount of air. Or you may choose to install a separate HRV or ERV system with its own ducts.

**Why am I required to ventilate my house after I just sealed it up?**
Think of air sealing and ventilation as two parts of the same strategy. Air sealing saves energy and increases comfort, while ventilation makes sure that the right amount of air is passing through the house. Air sealing saves more energy than ventilation uses.

**What is the light bulb requirement in the new code?**
You need to install high efficiency bulbs - LED or CFL - in either 75% of the bulb sockets in the house, or in 75% of the fixtures. This allows for the use of a multi-bulb fixture that cannot take these high efficiency bulbs.

**Some items in the code are labeled as Mandatory - what does this mean?**
Items labeled Mandatory are required, regardless of which of the 3 Compliance Paths you choose.

**The code requires an air barrier - what is that?**
It is an airtight barrier that completely surrounds the conditioned space. Any cracks, gaps, or holes must be made airtight. The code states that your exterior wall sheathing can be that air barrier, and this is the easiest place to have it, however other surfaces may be used. The only exception is that you are required to install an air barrier on the INSIDE of the insulation behind showers and tubs. This can be as simple as an unbroken layer of air-tight housewrap.

**How do I deliver an R-20 wall?**
Using the Prescriptive Path, one way is to install an R-21 fiberglass bat in a 2X6 wall, and another is to blow fiberglass or cellulose into a 2X6 wall to achieve the R-20. Another is to install R-13 in a 2X4 wall with R-5 (usually one inch) of rigid insulation on the outside. Another is to use either a UA or Simulated Performance Path calculation to trade-off wall insulation for other items. You may even be able to stay with your current R-13 walls with no exterior sheathing under some circumstances.

**Am I required to install R-49 in my attic?**
If you are using the prescriptive path, you can reduce that to R-38 if you use a raised heel truss or other strategy to get the full thickness of the R-38 over exterior wall plates at the eaves. Or use either a UA or Simulated Performance Path calculation to trade-off attic insulation for other items.

**Am I allowed to seal up my crawlspace?**
Yes. If you install a vapor barrier on the ground, air seal the walls, and insulate the walls, you have a conditioned crawlspace. This is the same as the common methods for insulating basement walls. Using the Prescriptive Path, you must use a continuous R-10 on the walls if there are no studs and R-13 if there are studs. Or you can use a UA or Simulated Performance Path calculation to trade-off foundation wall insulation for other items.

**How do I insulate the edges of my slab-on-grade?**
Using the Prescriptive Path, you must install R-10 either 2 feet down, 2 feet out, or a combination of 2 feet down and out. You are allowed to cut the top edge of the insulation board at a 45 degree angle to allow your slab to extend out to the foundation wall. Or you can use a UA or Simulated Performance Path calculation to trade-off foundation slab edge insulation for other items.

**Is a blower door test required for a residential gut rehab?**
If all wall cavities, ceilings and floors are exposed, then all code requirements pertaining to air sealing and air barriers - including blower door testing - apply. All three of the code compliance paths are available.

**Is a blower door test required for an addition?**
The addition must comply with code requirements pertaining to new construction, but the existing part of the house does not need to comply. However, because it is often difficult to separate the house from the addition, if construction costs of a non-thermally separated addition are less than 50% of the value of the existing house **(property),** then the addition does not need to be tested for building leakage. If you are building an addition and extending the ductwork of the existing system, you do not need to test the ducts.